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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/038,892	10/22/2001	Terence Leong	SMQ-120/P6217	8871
959	7590	09/27/2004	EXAMINER	
LAHIVE & COCKFIELD, LLP. 28 STATE STREET BOSTON, MA 02109			HIRL, JOSEPH P	
			ART UNIT	PAPER NUMBER
			2121	
DATE MAILED: 09/27/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/038,892	Applicant(s) LEONG ET AL.	
	Examiner Joseph P. Hirl	Art Unit 2121	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-60 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-60 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>122302</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-60 are pending in this application.

Claim Objection

2. Claims 16, 33 and 52 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim.

Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 16 adds no limitation on claim 13 since claim 13 has to access attributes to transform the accessed data object. Claims 33 and 30, 52 and 49 have similar relationships.

Claim Rejections - 35 USC § 112

3. Claims 14, 15, 17, 18, 30, 31, 32, 34, 50, 51, 53 and 54 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Related to claims 14, 31 and 50, since the assessed data object originated in the first programming language, using a SET interface in the first programming language to add each accessed attribute value from the assessed data object to the transformed data object

amounts to an identity function and accomplishes nothing. Related to claims 15, 32 and 51, the purpose of the invention is to transform data objects from one language to another language (abstract). However, claim 15, 32, and 51 are merely cycling data to and from the database ... accomplishing nothing. Regarding claims 17 and 53, does applicant reference length such that for each attribute, all lengths match or are greater or does the applicant infer that the transformed data object is referenced to the sum of the lengths? Regarding claims 18, 34 and 54, nothing is done if the request is related to the first programming language and further nothing is done if the transformation is from the third programming language to the third programming language? Regarding claim 30, if the computer implementation is only for the second programming language, what form is used for processing data objects in a first programming language? A means for related to the first programming language appears to be missing ... it is not step 4.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 1-24, and 37-60 rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The language of the claim raises a question as to whether the claim is directed merely to an abstract idea that is not tied to a technological art, environment or machine which would result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject

matter under 35 U.S.C. 101. While the application maybe trivial, claims 1-24 can be implemented with pencil and paper and wherein the "article of manufacture" is represented by the pencil and paper.

6. Claims 1-60 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Notwithstanding the content of claims 1-24 and 37-60 but assuming that all the claims are computer implemented, nonetheless the acts so stated appear to manipulate only numbers, abstract concepts or ideas and are not applied to appropriate subject matter. Thus, a process consisting solely of mathematical operations, i.e., converting one set of numbers into another set of numbers, does not manipulate appropriate subject matter and thus cannot constitute a statutory process (MPEP 2106.IV.B.1; *Schrader*, 22F.3d at 294-95, 30 USPQ2d at 1458-59).

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-60 are rejected under 35 U.S.C. 102(e) as being anticipated by Fong et al (U.S. Patent 6,678,867, referred to as **Fong 67**; incorporated by reference to U.S. Patent 6,678,867 is U.S. 6,009,436 referred to as **Fong 36**; and incorporated by reference to U.S. Patent 6,678,867 is U.S. 6,085,196 referred to as **Fong 96**).

Claims 1, 12, 13, 25, 37, 48, 49

Fong anticipates receiving a first data object implemented in a first programming language including attributes and attribute values for a class (**Fong 96**, c 1, l 25-38); transforming the first data object to a second data object implemented in a second programming language, herein the second data object includes the attributes and attribute values of the class included in the first data object (**Fong 96**, c 1, l 25-38); and adding the second data object to the database, wherein the database is capable of storing multiple data objects implemented in the second programming language (**Fong 96**, c 1, l 25-38; c 27, l 14-44; EN: Fong does not establish a limit to the database size; Fong is user oriented to initiate the translation request and the transformed data object will be returned to the user via the GUI as a natural course of user involvement; computer implementation follows from Fig. 19).

Claims 2, 26, 38

Fong anticipates receiving a class schema including information on the class and attributes of the first data object (**Fong 96**, c 2, l 14-15; c 8, l 50-64); and using the received class schema to transform the first data object to the second data object (**Fong 96**, c 2, l 14-15; c 8, l 50-64).

Claims 3, 27, 39

Fong anticipates generating a source code file in the second programming language to implement the class and attributes included in the class schema (**Fong 96**, c 27, l 31, 32); compiling the source code file to generate an executable file that implements methods of the class (**Fong 96**, c 14, l 60); using one method of the class to construct the second data object (**Fong 96**, c 8, l 50-64); and including the attribute values from the first data object into the second data object (**Fong 96**, c 8, l 50-64).

Claims 4, 40

Fong anticipates generating statements into the source code file to define SET and GET interfaces for each attribute in the class (**Fong 96**, c 8, l 29-45; Examiner's Note (EN): SET establishes the attribute; GET actually "gets" the attribute value).

Claims 5, 41

Fong anticipates using at least one GET method in the first programming language to access the attribute values from the first data object (**Fong 96**, c 8, l 50-64); and using at least one SET method in the second programming language to set each attribute in the second data object to the corresponding accessed attribute value (**Fong 96**, c 8, l 50-64; EN: such occurs in the SGML to HTML mapping).

Claims 6, 42

Fong anticipates using at least one GET method in the first programming language to access the attribute values from the first data object (**Fong 96**, c 8, l 29-64); and generating statements into the source code file to set the attributes in the second

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data object to the accessed attribute values from the first data object, wherein compiling the source code file produces the second data object with the attribute values set to the attribute values accessed from the first data object (**Fong 96**, c 8, l 29-64; c 27, l 31-44; EN: insertion into source code is merely software implementation and compiling typically follows to provide the binary instructions to drive the computer).

Claims 7, 28, 43

Fong anticipates the class schema includes for each attribute a name, data type and length of the attribute (**Fong 96**, c 8, l 13-64; EN: tags set beginning and end points).

Claims 8, 23, 44, 59

Fong anticipates the class schema is implemented in an Extensible Markup Language (XML) file (**Fong 67**, claim 4) .

Claims 9, 45

Fong anticipates wherein the database comprises an object oriented database (**Fong 96**, c 3, l 43-47).

Claims 10, 46

Fong anticipates wherein the first programming language comprises a non-Java object oriented language and wherein the second programming 3 language comprises the Java programming language (**Fong 96**, c 1, l 24-38; EN: JAVA is functionally similar to other object oriented programming languages as indicated in the specification on page 12, line 25).

Claims 11, 29, 47

Fong anticipates receiving a third data object implemented in the second programming language (**Fong 96**, c 4, l 25-26; EN: source to be mapped to itself or the second programming language); and adding the third data object to the database (**Fong 96**, c 27, l 14-43; EN: such is the database in memory).

Claims 19, 35, 55

Fong anticipates receiving a definition of a class and attributes in the class (**Fong 96**, c8, l 14-64); generating a file (**Fong 96**, c 27, l 14-44; EN: files are typical means for data storage); and adding information on the class and each attribute in the received class definition to the generated file (**Fong 96**, c 27, l 14-44; EN: such is the process of information recording in a computer).

Claims 20, 36, 56

Fong anticipates adding information on a name, length and data type of each attribute in the class in the received class definition to the generated file (**Fong 96**, c 8, l 13-64; EN: tags set start and end of length).

Claims 21, 57

Fong anticipates generating at least one tagged element into the file including information on each attribute in the class (**Fong 96**, c 8, l 13-64).

Claims 22, 58

Fong anticipates (at least one) generating one tagged element into the file including information on a name of the attribute (**Fong 96**, c 8, l 13-64); generating one tagged element into the file including information on a length of the attribute (**Fong 96**, c

8, l 13-64; EN: length is defined by the start and end tag); and generating one tagged element: into the file including information on a data type of the attribute (**Fong 96**, c 8, l 13-64).

Claim 24, 60

Fong anticipates accessing the definition of the class, including information on attributes of the class, from a source code file of the class (**Fong 96**, c 8, l 13-64; c 14, l 60; EN: the source code are human readable program statements which contain class attributes).

Examination Considerations

9. The claims and only the claims form the metes and bounds of the invention. "Office personnel are to give the claims their broadest reasonable interpretation in light of the supporting disclosure. *In re Morris*, 127 F.3d 1048, 1054-55, 44USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in the claim are not read into the claim. *In re Prater*, 415 F.2d, 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969)" (MPEP p 2100-8, c 2, l 45-48; p 2100-9, c 1, l 1-4). The Examiner has full latitude to interpret each claim in the broadest reasonable sense. Examiner will reference prior art using terminology familiar to one of ordinary skill in the art. Such an approach is broad in concept and can be either explicit or implicit in meaning.

10. Examiner's Notes are provided to assist the applicant to better understand the nature of the prior art, application of such prior art and, as appropriate, to further indicate other prior art that maybe applied in other office actions. Such comments are entirely consistent with the intent and spirit of compact prosecution. However, and unless otherwise stated, the Examiner's Notes are not prior art but a link to prior art that one of ordinary skill in the art would find inherently appropriate.

11. Examiner's Opinion: Paras 9. and 10. apply. In general, the claims, as written, facilitate a confused view of the invention. Clarity in the claims will noticeably improve this application. Shorten the number of claims and concentrate on the heart of the invention. Note the prior art and the potential use of three patents that are acceptable as if one.

Conclusion

12. The prior art of record and not relied upon is considered pertinent to applicant's disclosure.

- Copeland et al, U.S. Pub. 2003/0046673
- Wenzel et al, U.S. Pub. 2002/0089538
- Fong et al, U.S. Pub 2002/0085032

13. Claims 1-60 are rejected.

Correspondence Information

Any inquiry concerning this information or related to the subject disclosure should be directed to the Examiner, Joseph P. Hirl, whose telephone number is (703) 305-1668. The Examiner can be reached on Monday – Thursday from 6:00 a.m. to 4:30 p.m.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Anthony Knight can be reached at (703) 308-3179.

Any response to this office action should be mailed to:

Commissioner of Patents and Trademarks,

Washington, D. C. 20231;

or faxed to:

(703) 746-7239 (for formal communications intended for entry);

or faxed to:

(703) 746-7290 (for informal or draft communications with notation of "Proposed" or "Draft" for the desk of the Examiner).

Note: During the last two weeks of October 2004, Art Unit 2121 will move to Carlyle, Randolph Building, 5th floor and my phone and fax number will change to: 571-272-3685 and 571-273-3685, respectively. Similarly, Anthony Knight's phone and fax numbers will change to: 571-272-3687 and 571-273-3687.



Joseph P. Hirl

September 22, 2004